CLAIMS:

1.   A method comprising:

automatically communicating service related characteristics associated with a first customer premise device; and

receiving, at the first customer premise device in response to the service related characteristics, discovered service information associated with at least one other customer premise device that shares the service related characteristics.

2.   The method of claim 1, further comprising automatically configuring a service of the first customer premise device based on the service related characteristics and the discovered service information.

3.   The method of claim 2, wherein the service comprises at least one of active performance measurement services, inventory management, device management services, Quality of Service (QoS), security services, and service level agreements.

4.   The method of claim 1, wherein the service is a virtual private network.

5.   The method of claim 4, wherein the service related characteristics comprise at least one of a site identification, a virtual private network identification, a topology of a virtual private network, customer premise device information, Internet Protocol address, quality of service information, device virtual private network status, and type of virtual private network.

6.   The method of claim 1, wherein the step of communicating service related characteristics comprises communicating the service related characteristics to a second device.

7.   The method of claim 6, wherein the second device is a public router.

8.   The method of claim 6, wherein the second device is a second customer premise device.

9.   The method of claim 1, further comprising periodically communicating the service related characteristics to other devices.

10.   The method of claim 1, further comprising communicating the service related characteristics from the first customer premise device to other devices upon a receiving a service configuration update.

11.   The method of claim 1, further comprising querying other network devices to discover service information associated with at least one other customer premise device that shares the service related characteristics.

12.   The method of claim 11, further comprising communicating service information associated with the first customer premise device to the at least one other customer premise device.

13.   The method of claim 12, further comprising updating a service configuration of the at least one other customer premise device based on the service information associated with the first customer premise device.

14.   A method, comprising:

receiving a communication from a first network device for establishing a service, wherein the communication includes service related characteristics associated with the first network device;

querying other network devices to discover information about at least one other network device associated with the service related characteristics;

communicating the discovered information to the first network device; and

configuring the service based on the service related characteristics and the discovered information.

15.   The method of claim 14, wherein receiving a communication comprises receiving a communication in accordance with a service discovery protocol.

16.   The method of claim 14, wherein the service is a virtual private network.

17.   The method of claim 14, wherein the service comprises at least one of active performance measurement services, inventory management services, device management services, Quality of Service (QoS), security services, and service level agreements.

18.   A network device comprising a control unit that implements a service discovery protocol to automatically communicate service related characteristics associated with the network device, and to receive discovered service information associated with other network devices based on the service related characteristics.

19.   The network device of claim 18, wherein the control unit automatically configures a service of the network device based on the service related characteristics and the discovered service information.

20.   The network device of claim 19, wherein the service comprises at least one of active performance measurement services, inventory management services, device management services, security services, and service level agreements.

21. The network device of claim 19, wherein the service is a virtual private network.

22. The network device of claim 21, wherein the service related characteristics comprise at least one of a site identification, a virtual private network identification, a topology of a virtual private network, customer premise device information, Internet Protocol address, quality of service information, device virtual private network status, and type of virtual private network.

23. A method comprising:

receiving from a first customer premise device service related characteristics in accordance with a service discovery protocol;

discovering service information, via the service discovery protocol, from a second customer premise device that shares the service related characteristics; and

communicating the discovered service information to the first customer premise device.

24. The method of claim 23, wherein discovering service information further comprises querying at least one network device in accordance with the service discovery protocol to discover the service information from the second customer premise device.

25. The method of claim 24, wherein the at least one network device is a public router.

26. The method of claim 23, further comprising communicating information about the first customer premise device to the second customer premise device, and updating service configuration information at the second customer premise device based on the information about the first customer premise device and the service related characteristics.

27. The method of claim 23, wherein the first customer premise device is a router.

28. The method of claim 23, wherein the second customer premise device is a router.

29.   The method of claim 23, wherein the service related characteristics are associated with a service, and wherein the service comprises at least one of a virtual private network, active performance measurement services, inventory management services, device management services, Quality of Service (QoS), security services, and service level agreements.

30.   A network device, comprising a control unit that automatically communicates service related characteristics and receives discovered service information concerning at least one other device that shares the service related characteristics.

31.   The network device of claim 30, further comprising a service discovery protocol through which the service related characteristics and discovered service information are obtained and communicated and received.

32.   The network device of claim 30, wherein the control unit further automatically configures a service based on the service related characteristics and the discovered service information.

33.   The network device of claim 32, wherein the service is a virtual private network.

34.   The network device of claim 32, wherein the service comprises at least one of active performance measurement services, inventory management services, device management services, Quality of Service (QoS), security services, and service level agreements.

35.   The network device of claim 30, wherein the network device comprises a router.

36.   The network device of claim 30, wherein a management interface receives the service related characteristics from a human administrator and sends the service related characteristics to the network device.

37.   A computer-readable medium comprising instructions to cause a processor to:

automatically communicate service related characteristics associated with a first customer premise device; and

receive, at the first customer premise device in response to the service related characteristics, discovered service information associated with at least one other customer premise device that shares the service related characteristics.

38.   The computer-readable medium of claim 37, further comprising instructions to cause a processor to automatically configure a service based on the service related characteristics and the discovered service information.

39.   The computer-readable medium of claim 38, wherein the service comprises at least one of active performance measurement services, inventory management services, device management services, Quality of Service (QoS), security services, and service level agreements.

40.   The computer-readable medium of claim 38, wherein the service is a virtual private network.

41.   The computer-readable medium of claim 37, further comprising instructions to cause a processor to query other network devices to discover service information about at least one other customer premise device that shares the service related characteristics.

42.   The computer-readable medium of claim 37, further comprising instructions to cause a processor to communicate service information regarding the first customer premise device to the at least one other customer premise device.

43.   The computer-readable medium of claim 42, further comprising instructions to cause a processor to update a service configuration based on the service information regarding the first customer premise device.